Groups/Mode of Action	Chemical Families	Brand Name Examples (Not all inclusive)
Group 1: inhibits acetyl CoA carboxylase ACCase. These chemicals block an enzyme called ACCase. This enzyme helps the formation of lipids in the roots of grass plants. Without lipids, susceptible plants die.	Arloxyphenoxy propionate (Fop) Cyclohexanediones (DIM)	Whip, Acclaim, Fusion, Assure, Poast Ultra, Select
Group 2: ALS/AHAS inhibitors. These chemicals block the normal function of an enzyme called acetolactate (ALS) actohydroxy acid (AHAS). This enxyme is essential in amino acid (protein) synthesis. Without proteins, plants starve to death.	Imidazolinones Sulfonylureas	Peak, Classic, Ally, Escort, Permit, Accent, Beacon, Titus, Oust, Pinnacle, Option, Telar, Raptor, Plateau, Arsenal, Scepter, Pursuit, Steel, Broadstrike, Staple
Group 3: Microtubule assembly inhibitors. These chemicals inhibit the cell division in roots.	Dinitroanilines Pyridazines	Balan, Sonalan, Surflan, Prowl, Treflan, Pendulum , Dimension
Group 4: Synthetic auxins. These chemicals disrupt plant cell growth in newly forming stems and leaves; they affect protein synthesis and normal cell division, leading to malformed growth and tumors.	Benzoic acids Carboxylic acids Phenoxy Quinoline carboxylic acid	Dicamba, Banvel, Vanquish, Curtail, Stinger, Milestone, Tordon 22K, Grazon, Remedy, Confront, Redeem, 2,4-D, Garlon, Facet
Group 5: Photosynthetic inhibitors at Photosystem II, Site A. these chemicals interfere with photosynthesis and disrupt plant growth, ultimately leading to death.	Triazines Triazinones Uracils	Evik, Aatrex, Bladex, Pramitol, Princep, Velpar, Sencor, Lexone, Hyvar XL, Sinbar, Krovar
Group 6: Photosynthetic inhibitors at Photosystem II, Site II.	Benzthiadiazoles Nitriles Phenyl-pyridazine	Buctril, Basagran, Laddok, Tough
Group 7: Photosynthetic inhibitors at Photosystem II, Site B.	Ureas Amide	Karmex, Lorox, Spike, Stam, Sahara DG
Group 8: Lipid Synthesis inhibitors. Not ACCase inhibition. These chemicals inhibit the cell division and elongation in seedling shoots before they emerge above ground.	Thiocarbamates	Sutan +, Eptam, Eradicane, Vernam
Group 9: Inhibitors of EPSP synthesis. These chemicals inhibit the amino-acid synthesis.	None	Products with Glyphosate such as Roundup, Touchdown, etc.

Group 10: Inhibitors of glutamine synthetase.	none	Products with Glufosinate such as Liberty
Group 11: These chemicals inhibit the carotenoids synthesis.	Triazole	Amitrol T
Group 12: Inhibitors of carotenoid synthesis at phytoene desaturase (PDS)	Pyridazione Others	Zorial, Sonar
Group 13: inhibition of diterpenes	Isoxazolidinone	Command, Commence
Group 14: Inhibition of protoporphyrinogen oxidase (PPO).	Diphenylethers N-phenylphthalamides Triazolinone	Blazer, Status, Reflex, Cobra, Goal, Action, Resource, Authority, Aim, Valor, Piper
Group 15: Inhibitors of cell growth and division.	Chloracetamides Oxyacetamides	Harness, Surpass, Lasso, Machete, Dual, Bicep, Kerb, Ramrod, Frontier, Axiom, Epic, Piper
Group 16: Unknown	Benzofuran	Nortran
Group 17: Unknown	Organoarsenicals	DSMA and MSMA products
Group 18: Inhibition of DHP	Carbamate	Asulox
Group 19: Inhibition of indoleacetic acid action	Phthalamate	Alanap
Group 20: Inhibits actively dividing merestems in roots and shoots as well as seed germination (cellulose synthase)	Nitrile	Casoron
Group 21: Inhibition of cell wall synthesis site - B	Benzamide, Indaziflam	Gallery. Specticle
Group 22: Cell membrane disruptors. Chemicals that disrupt the internal cell membrane and prevent the cells from manufacturing food. (Inhibition of photosystem I- electron diversion)	Bipyridyliums	Diquat, Gramoxone
Group 23: Inhibition of mitosis	Carbamates	Products with: chloropham or propham
Group 24: Uncoupling – membrane disrupters	Dinitrophenol	Products with: dinoseb
Group 25: Unknown	Arlaminopropionic acid	Products with: flamprop-methyl
Group 26: Unknown	Unknown	Products with: TCA
Group 27: Unknown	Various	Cinch or products with: bromobutide, cinmethylin, dymron, flupoxam, frquency
Group 28: Inhibits plant pigment biosynthesis and photosynthesis. (Inhibition of 4-HPPD)	Pyrazole Triketone Isoxazole	Balance, Epic, Callisto

Compliments of: http://www.weeds.iastate.edu/reference/siteofaction.htm January 6, 2010